

IN THE CLAIMS, PLEASE ADD:

34. (new) A method for forming a multilayer solder attachment site in an electronic assembly having one or more copper connection sites, the method comprising the steps of:

applying a thin nickel layer to at least one copper connection site;

applying a diffusion layer to the thin nickel layer;

thereby forming a multilayer solder attachment site for facilitating the formation of an intermetallic compound upon the application of molten solder.

35. (new) A method according to claim 34 wherein the intermetallic compound comprises copper-tin.

36. (new) A method according to claim 34 wherein the intermetallic compound comprises copper-tin-nickel.

37. (new) A method according to claim 34 wherein the diffusion layer comprises palladium.

38. (new) A method according to claim 34 wherein the diffusion layer comprises gold.

39. (new) A method according to claim 34 wherein the thin nickel layer is applied to a thickness of greater than about 0.05 microns.

40. (new) A method according to claim 34 wherein the thin nickel layer is applied to a thickness of less than about 0.28 microns.

41. (new) A method according to claim 34 wherein the thin nickel layer is applied to a thickness within the range of approximately 0.05 microns to approximately 0.28 microns.

42. (new) A method according to claim 34 wherein the diffusion layer is applied to a thickness of greater than about 0.1 microns.

43. (new) A method according to claim 34 wherein the diffusion layer is applied to a thickness of less than about 0.3 microns.

44. (new) A method according to claim 34 wherein the diffusion layer is applied to a thickness within the range of approximately 0.1 microns to approximately 0.3 microns.

45. (new) A method according to claim 34 further comprising steps of interposing an intermediate nickel layer atop the copper connection site and an intermediate copper layer thereon underlying the thin nickel layer.

46. (new) A multilayer solder attachment site in an electronic assembly having one or more copper connection sites, the multilayer solder attachment site comprising:

- a thin nickel layer on at least one copper connection site;

- a diffusion layer on the thin nickel layer;

- wherein a multilayer solder attachment site is provided for facilitating the formation of an intermetallic compound upon the application of molten solder.

47. (new) A multilayer solder attachment site according to claim 46 wherein the multilayer solder attachment site is adapted for the formation of an intermetallic compound comprising copper-tin.

48. (new) A multilayer solder attachment site according to claim 46 wherein the multilayer solder attachment site is adapted for the formation of an intermetallic compound comprising copper-tin-nickel.

49. (new) A multilayer solder attachment site according to claim 46 wherein the diffusion layer comprises palladium.

50. (new) A multilayer solder attachment site according to claim 46 wherein the diffusion layer comprises gold.

51. (new) A multilayer solder attachment site according to claim 46 wherein the thin nickel layer is greater than about 0.05 microns in thickness.

52. (new) A multilayer solder attachment site according to claim 46 wherein the thin nickel layer is less than about 0.28 microns in thickness.

53. (new) A multilayer solder attachment site according to claim 46 wherein the thin nickel layer is within the range of approximately 0.05 microns to approximately 0.28 microns in thickness.

54. (new) A multilayer solder attachment site according to claim 46 wherein the diffusion layer is greater than about 0.1 microns in thickness.

55. (new) A multilayer solder attachment site according to claim 46 wherein the diffusion layer is less than about 0.3 microns in thickness.

56. (new) A multilayer solder attachment site according to claim 46 wherein the diffusion layer is within the range of approximately 0.1 microns to approximately 0.3 microns in thickness.

57. (new) A multilayer solder attachment site according to claim 46 further comprising an intermediate nickel layer atop the copper connection site and an intermediate copper layer thereon underlying the thin nickel layer.

58. (new) A multilayer solder attachment site according to claim 57 wherein the intermediate nickel layer is approximately 0.5 microns in thickness.

59. (new) A multilayer solder attachment site according to claim 57 wherein the intermediate copper layer is greater than about 0.5 microns in thickness.

60. (new) A multilayer solder attachment site according to claim 57 wherein the intermediate copper layer is less than about 1.0 microns in thickness.